TO4027 "T9290001

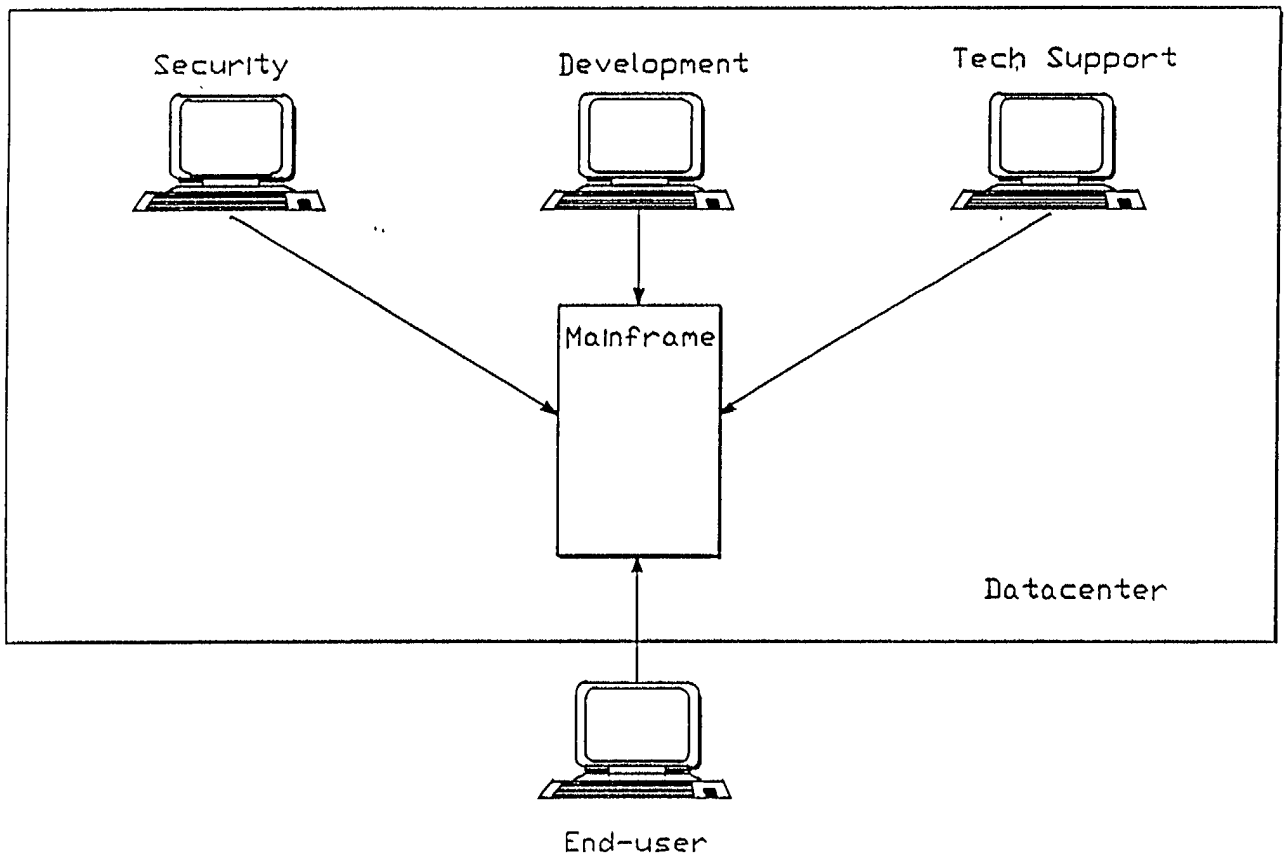


FIG.—1
(PRIOR ART)

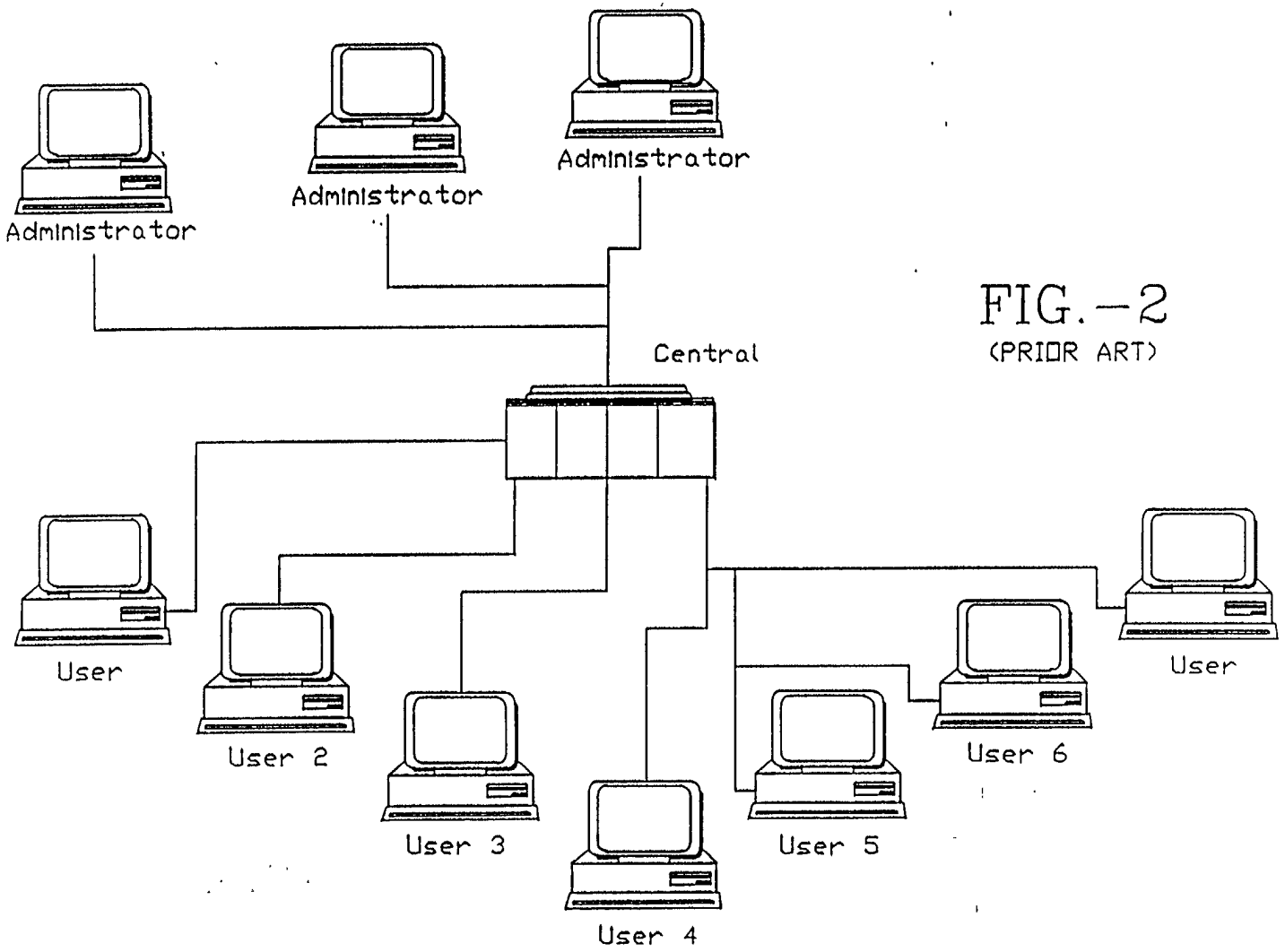


FIG.-2
(PRIOR ART)

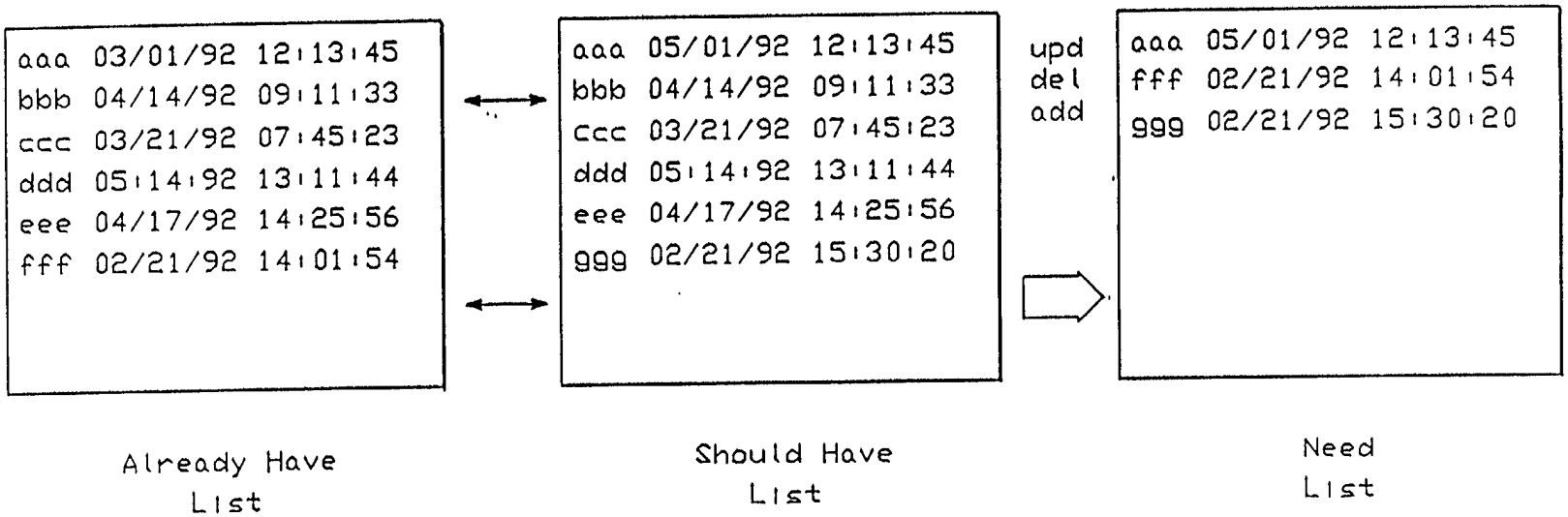


FIG.—3
(PRIOR ART)

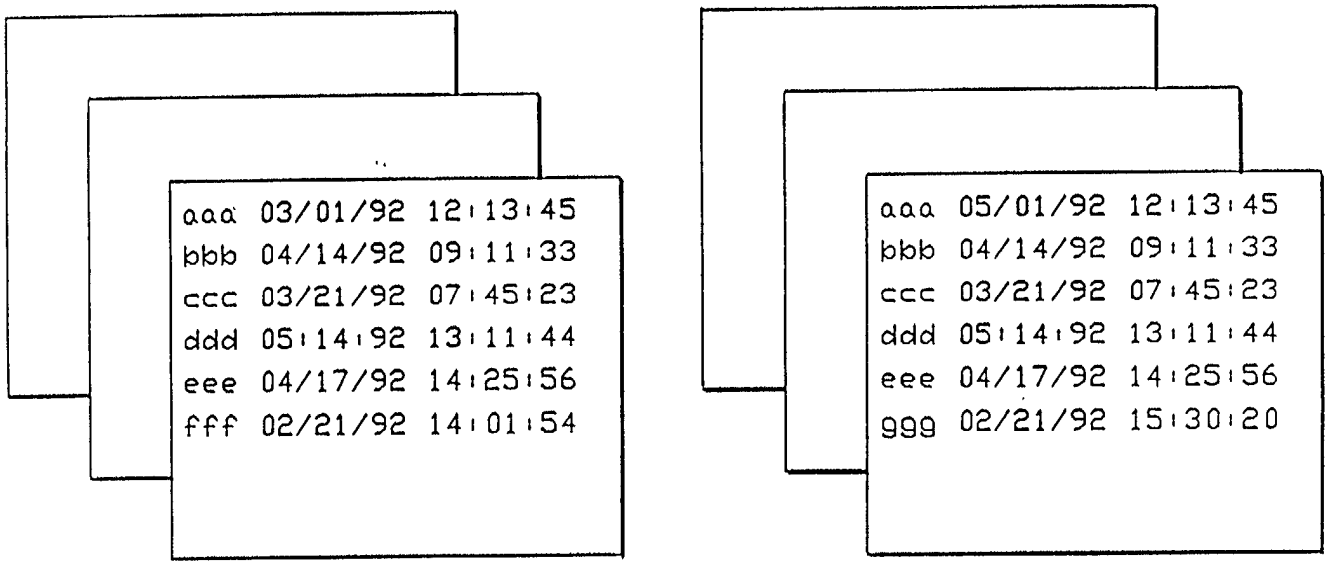


FIG.—4
(PRIOR ART)

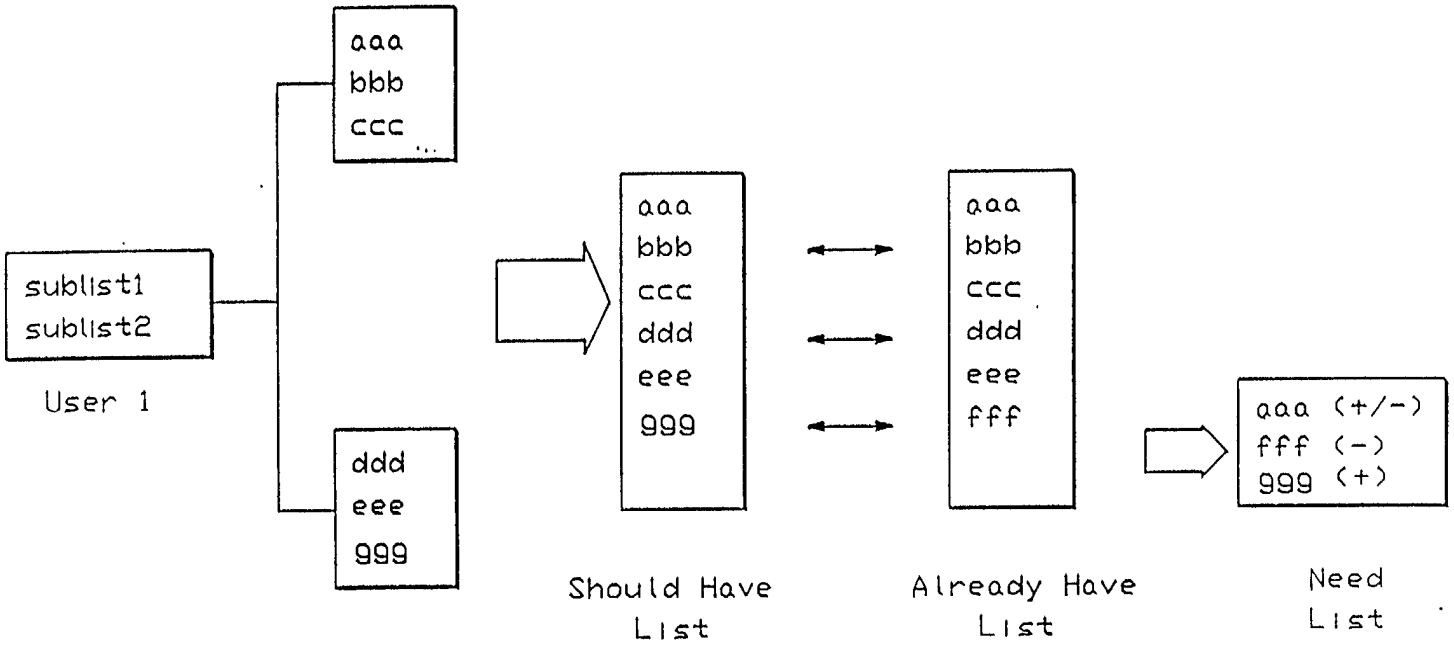


FIG.—5
(PRIOR ART)

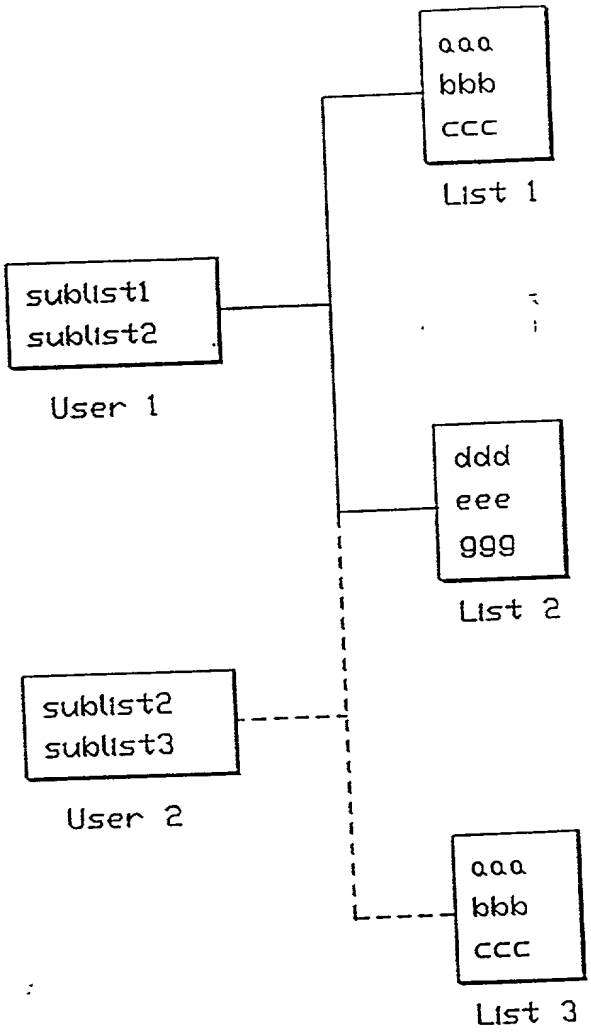


FIG.—6
(PRIOR ART)

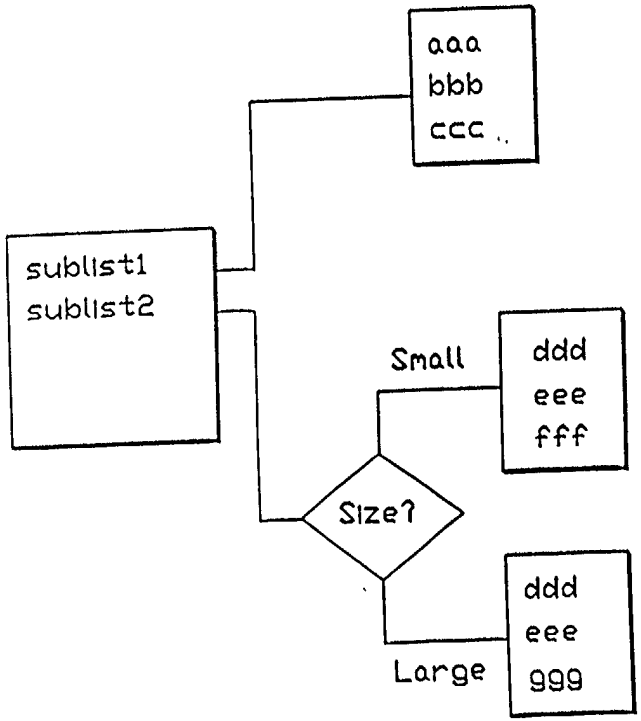

aaa
bbb
ccc
sublist1
sublist2
Small
ddd
eee
fff
Size?
ddd
eee
ggg
Large

FIG.–7A

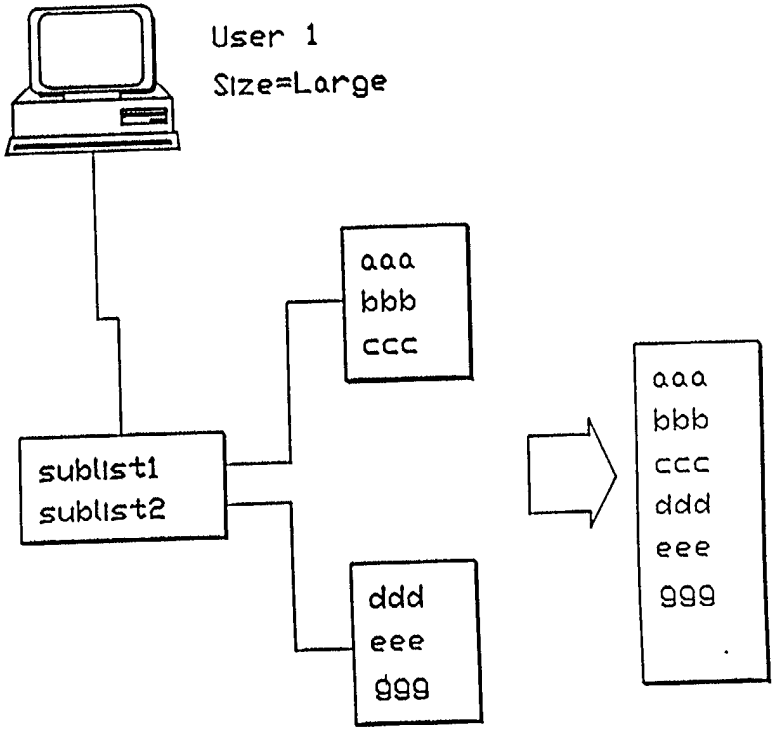

User 1
Size=Large
aaa
bbb
ccc
sublist1
sublist2
ddd
eee
ggg
aaa
bbb
ccc
ddd
eee
ggg

FIG.–7B

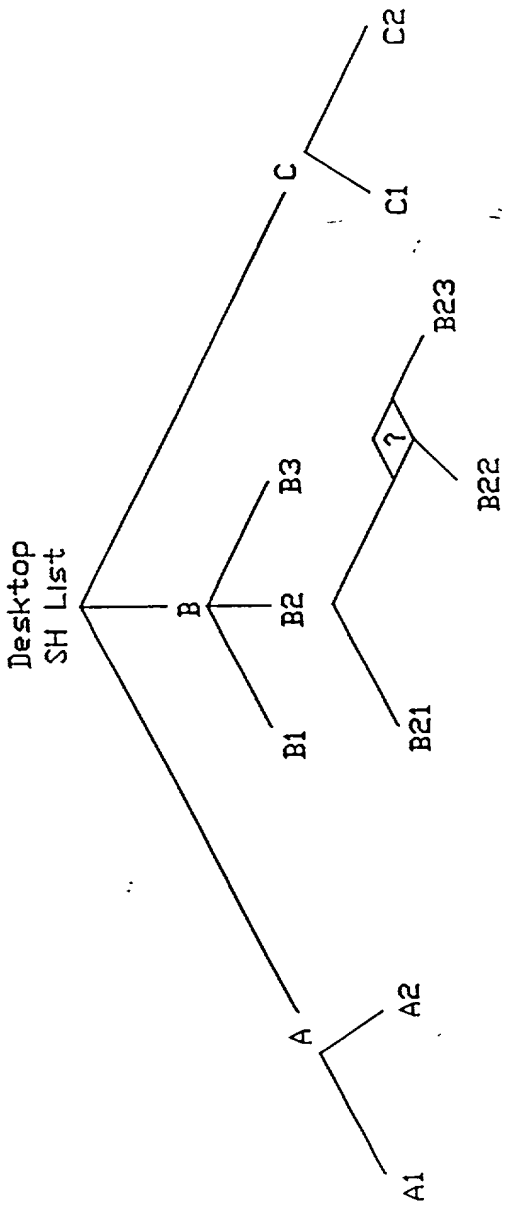


FIG.—8

T04027 T929000T

Name	LUDT
aaa	05/01/92 12:13:45
bbb	04/14/92 09:11:33
ccc	03/21/92 07:45:23
ddd	05/14/92 13:11:44
eee	04/17/92 14:25:56
ggg	02/21/92 15:30:20

Should Have List

LSDT
05/14/92 13:11:44

LSTD is >= any LUDT in AHL.

Already Have List

FIG.—9

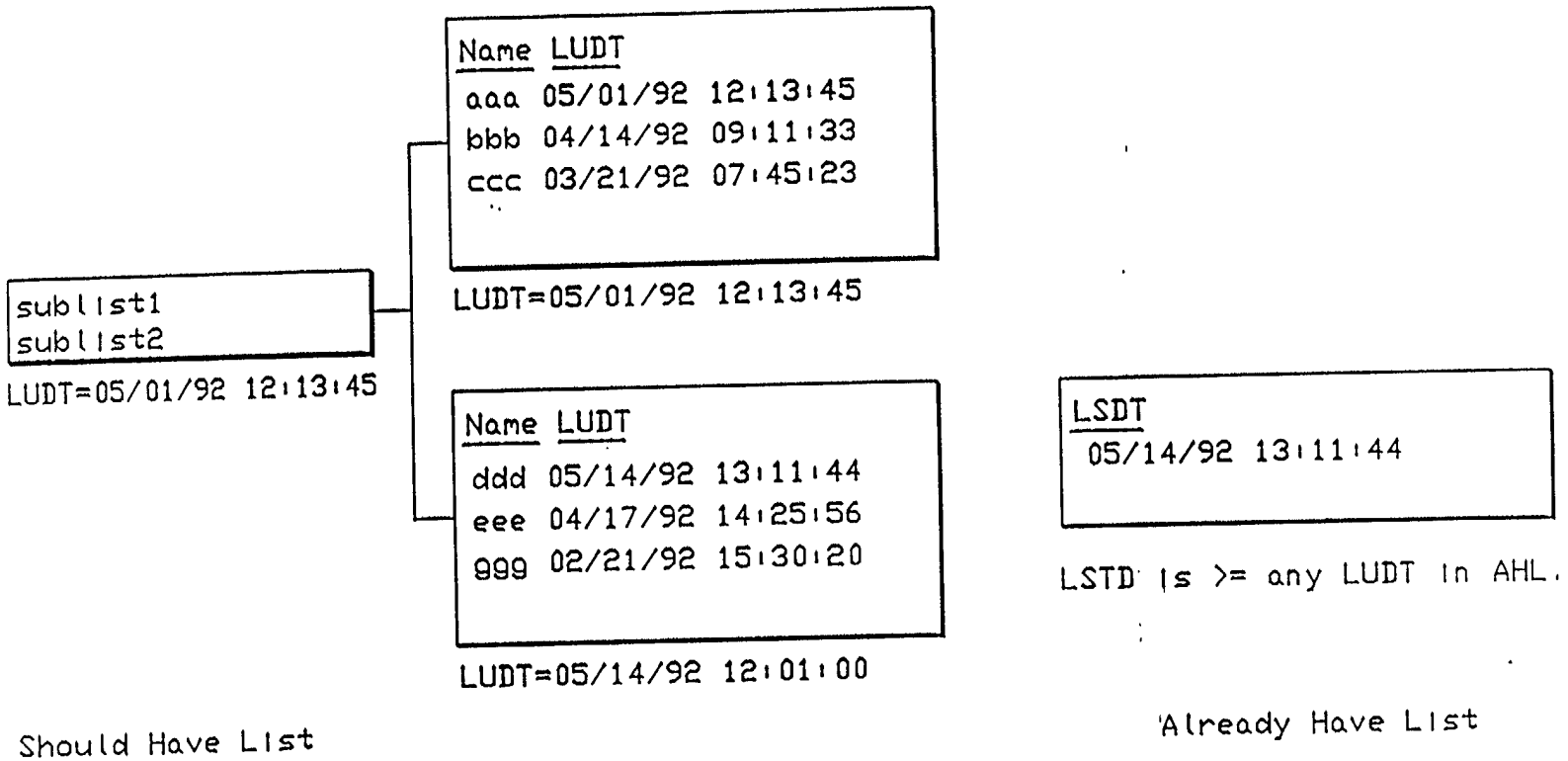

Name LUDT
aaa 05/01/92 12:13:45
bbb 04/14/92 09:11:33
ccc 03/21/92 07:45:23
LUDT=05/01/92 12:13:45
sublist1
sublist2
LUDT=05/01/92 12:13:45
Name LUDT
ddd 05/14/92 13:11:44
eee 04/17/92 14:25:56
ggg 02/21/92 15:30:20
LUDT=05/14/92 12:01:00
LSDT
05/14/92 13:11:44
LSTD is >= any LUDT in AHL.
Should Have List
Already Have List

FIG.—10

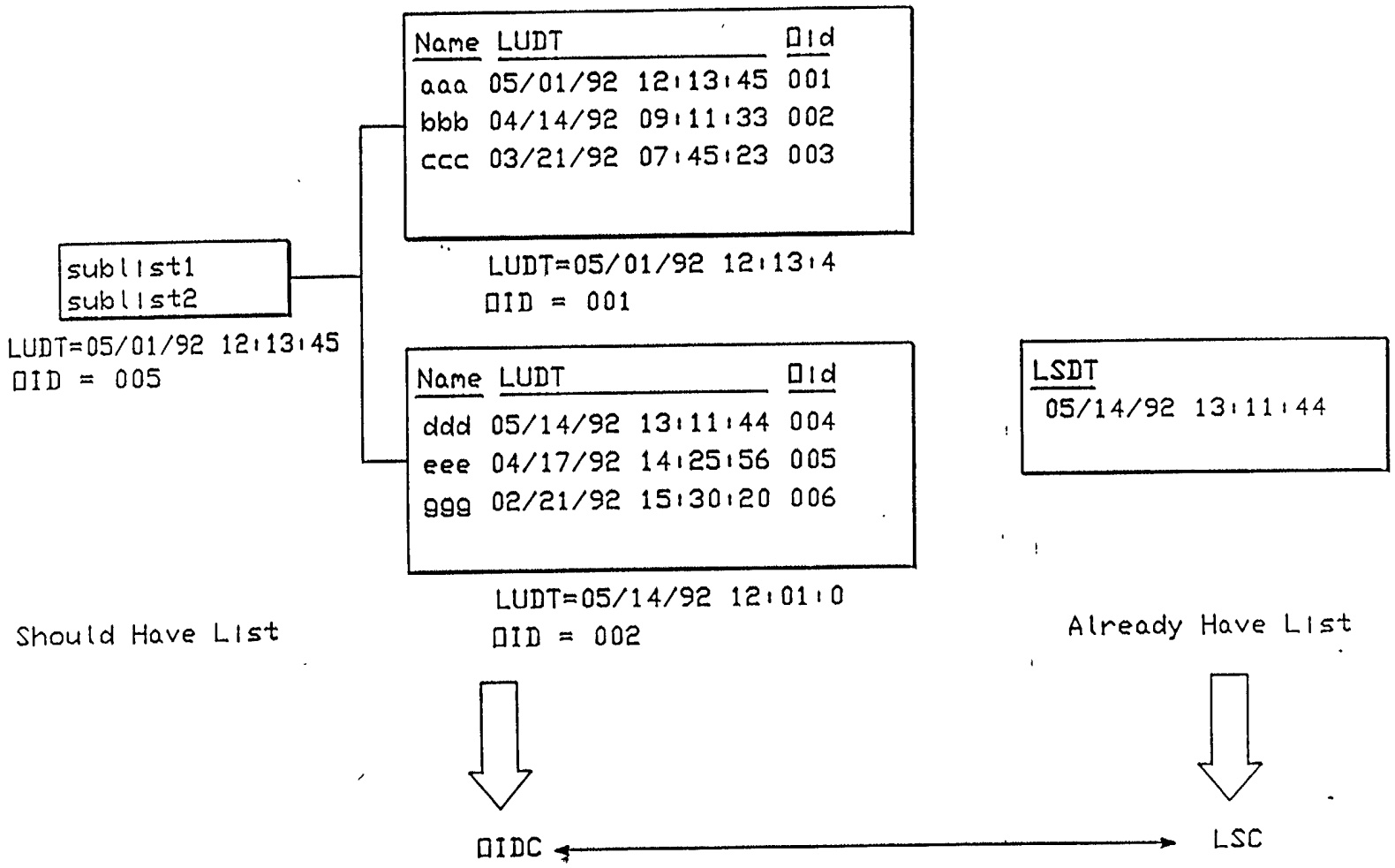
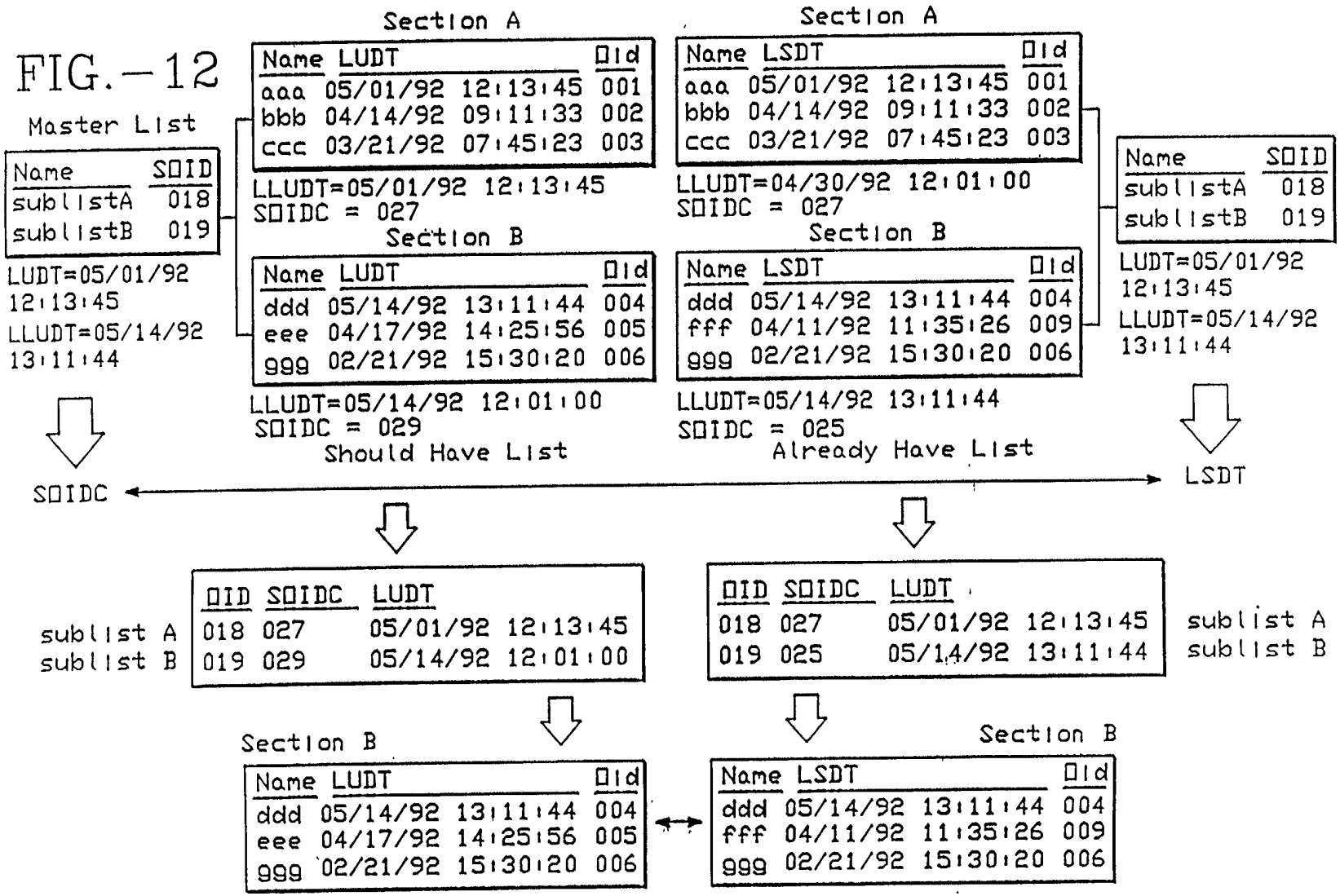

Name LUDT Did
aaa 05/01/92 12:13:45 001
bbb 04/14/92 09:11:33 002
ccc 03/21/92 07:45:23 003
LUDT=05/01/92 12:13:4
DID = 001
sublist1
sublist2
LUDT=05/01/92 12:13:45
DID = 005
Name LUDT Did
ddd 05/14/92 13:11:44 004
eee 04/17/92 14:25:56 005
ggg 02/21/92 15:30:20 006
LUDT=05/14/92 12:01:0
DID = 002
LSDT
05/14/92 13:11:44
Should Have List
Already Have List
DIDC
LSC

FIG.—11

FIG.—12


Master List
Name SOID
sublistA 018
sublistB 019
LUDT=05/01/92 12:13:45
LLUDT=05/14/92 13:11:44
Section A
Name LUDT OId
aaa 05/01/92 12:13:45 001
bbb 04/14/92 09:11:33 002
ccc 03/21/92 07:45:23 003
LLUDT=05/01/92 12:13:45
SOIDC = 027
Section B
Name LUDT OId
ddd 05/14/92 13:11:44 004
eee 04/17/92 14:25:56 005
ggg 02/21/92 15:30:20 006
LLUDT=05/14/92 12:01:00
SOIDC = 029
Should Have List
Section A
Name LSDT OId
aaa 05/01/92 12:13:45 001
bbb 04/14/92 09:11:33 002
ccc 03/21/92 07:45:23 003
LLUDT=04/30/92 12:01:00
SOIDC = 027
Section B
Name LSDT OId
ddd 05/14/92 13:11:44 004
fff 04/11/92 11:35:26 009
ggg 02/21/92 15:30:20 006
LLUDT=05/14/92 13:11:44
SOIDC = 025
Already Have List
Name SOID
sublistA 018
sublistB 019
LUDT=05/01/92 12:13:45
LLUDT=05/14/92 13:11:44
LSDT
SOIDC
OID SOIDC LUDT
sublist A 018 027 05/01/92 12:13:45
sublist B 019 029 05/14/92 12:01:00
OID SOIDC LUDT
018 027 05/01/92 12:13:45
019 025 05/14/92 13:11:44
sublist A
sublist B
Section B
Name LUDT OId
ddd 05/14/92 13:11:44 004
eee 04/17/92 14:25:56 005
ggg 02/21/92 15:30:20 006
Section B
Name LSDT OId
ddd 05/14/92 13:11:44 004
fff 04/11/92 11:35:26 009
ggg 02/21/92 15:30:20 006

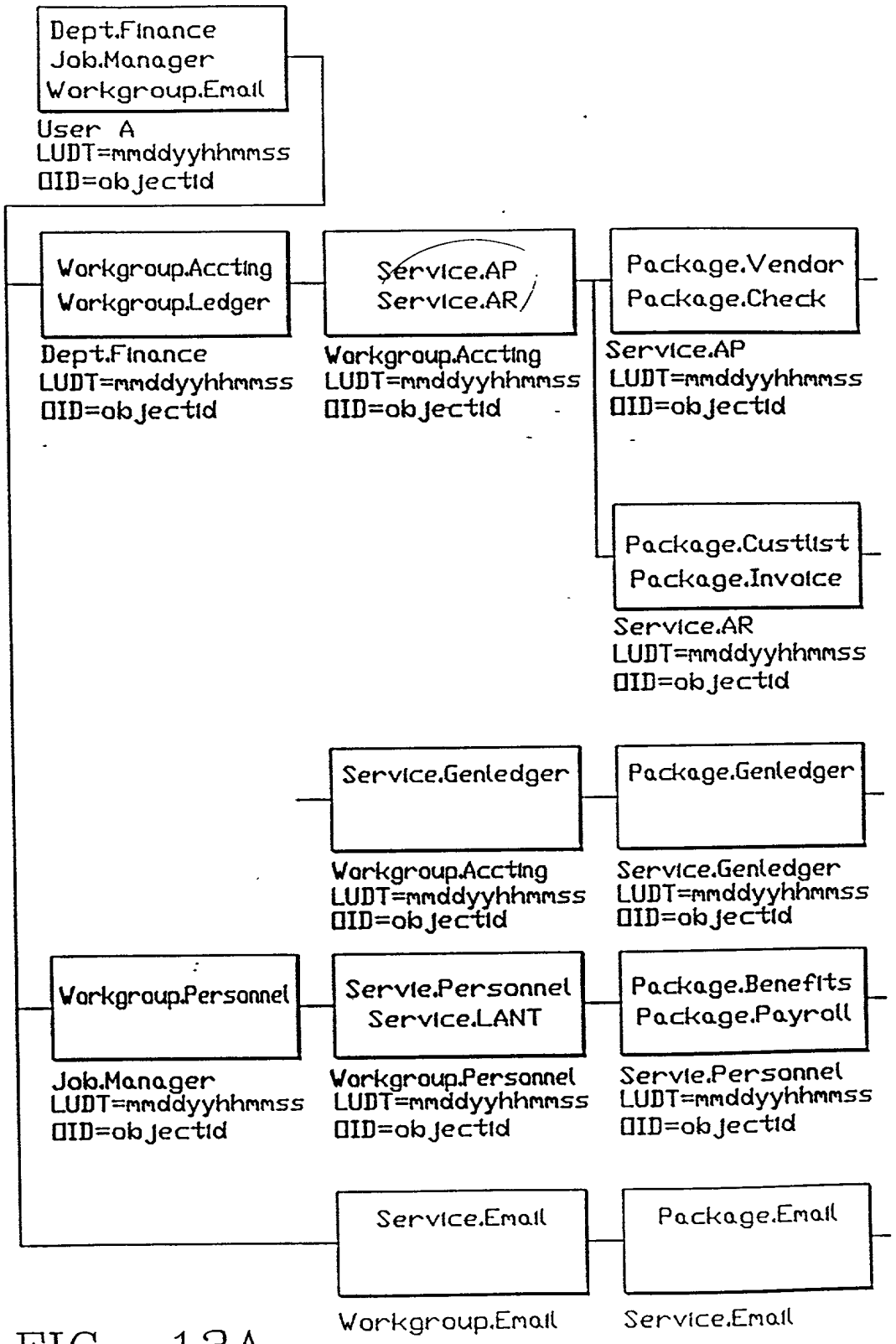

Dept.Finance
Job.Manager
Workgroup.Email
User A
LUDT=mmddyyhhmmss
OID=objectid
Workgroup.Accting
Workgroup.Ledger
Dept.Finance
LUDT=mmddyyhhmmss
OID=objectid
Service.AP
Service.AR
Workgroup.Accting
LUDT=mmddyyhhmmss
OID=objectid
Package.Vendor
Package.Check
Service.AP
LUDT=mmddyyhhmmss
OID=objectid
Package.Custlist
Package.Invoice
Service.AR
LUDT=mmddyyhhmmss
OID=objectid
Service.Genledger
Workgroup.Accting
LUDT=mmddyyhhmmss
OID=objectid
Package.Genledger
Service.Genledger
LUDT=mmddyyhhmmss
OID=objectid
Workgroup.Personnel
Job.Manager
LUDT=mmddyyhhmmss
OID=objectid
Servie.Personnel
Service.LANT
Workgroup.Personnel
LUDT=mmddyyhhmmss
OID=objectid
Package.Benefits
Package.Payroll
Servie.Personnel
LUDT=mmddyyhhmmss
OID=objectid
Service.Email
Workgroup.Email
Package.Email
Service.Email

FIG.—13A

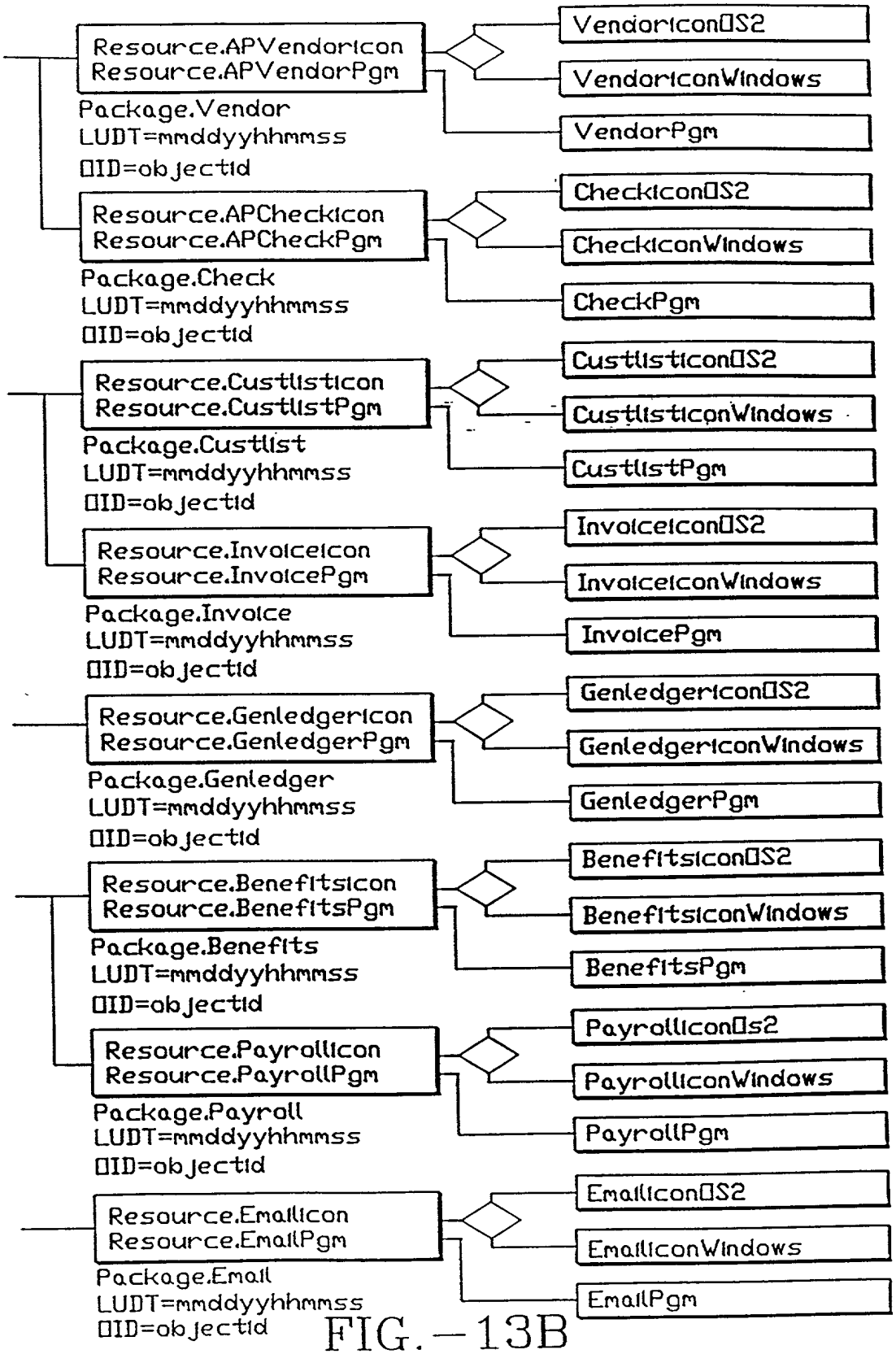

Resource.APVendorIcon
Resource.APVendorPgm
Package.Vendor
LUDT=mmddyyhhmmss
OID=objectid
VendorIconOS2
VendorIconWindows
VendorPgm
Resource.APCheckIcon
Resource.APCheckPgm
Package.Check
LUDT=mmddyyhhmmss
OID=objectid
CheckIconOS2
CheckIconWindows
CheckPgm
Resource.CustlistIcon
Resource.CustlistPgm
Package.Custlist
LUDT=mmddyyhhmmss
OID=objectid
CustlistIconOS2
CustlistIconWindows
CustlistPgm
Resource.InvoiceIcon
Resource.InvoicePgm
Package.Invoice
LUDT=mmddyyhhmmss
OID=objectid
InvoiceIconOS2
InvoiceIconWindows
InvoicePgm
Resource.GenledgerIcon
Resource.GenledgerPgm
Package.Genledger
LUDT=mmddyyhhmmss
OID=objectid
GenledgerIconOS2
GenledgerIconWindows
GenledgerPgm
Resource.BenefitsIcon
Resource.BenefitsPgm
Package.Benefits
LUDT=mmddyyhhmmss
OID=objectid
BenefitsIconOS2
BenefitsIconWindows
BenefitsPgm
Resource.PayrollIcon
Resource.PayrollPgm
Package.Payroll
LUDT=mmddyyhhmmss
OID=objectid
PayrollIconOs2
PayrollIconWindows
PayrollPgm
Resource.EmailIcon
Resource.EmailPgm
Package.Email
LUDT=mmddyyhhmmss
OID=objectid
EmailIconOS2
EmailIconWindows
EmailPgm

FIG.—13B

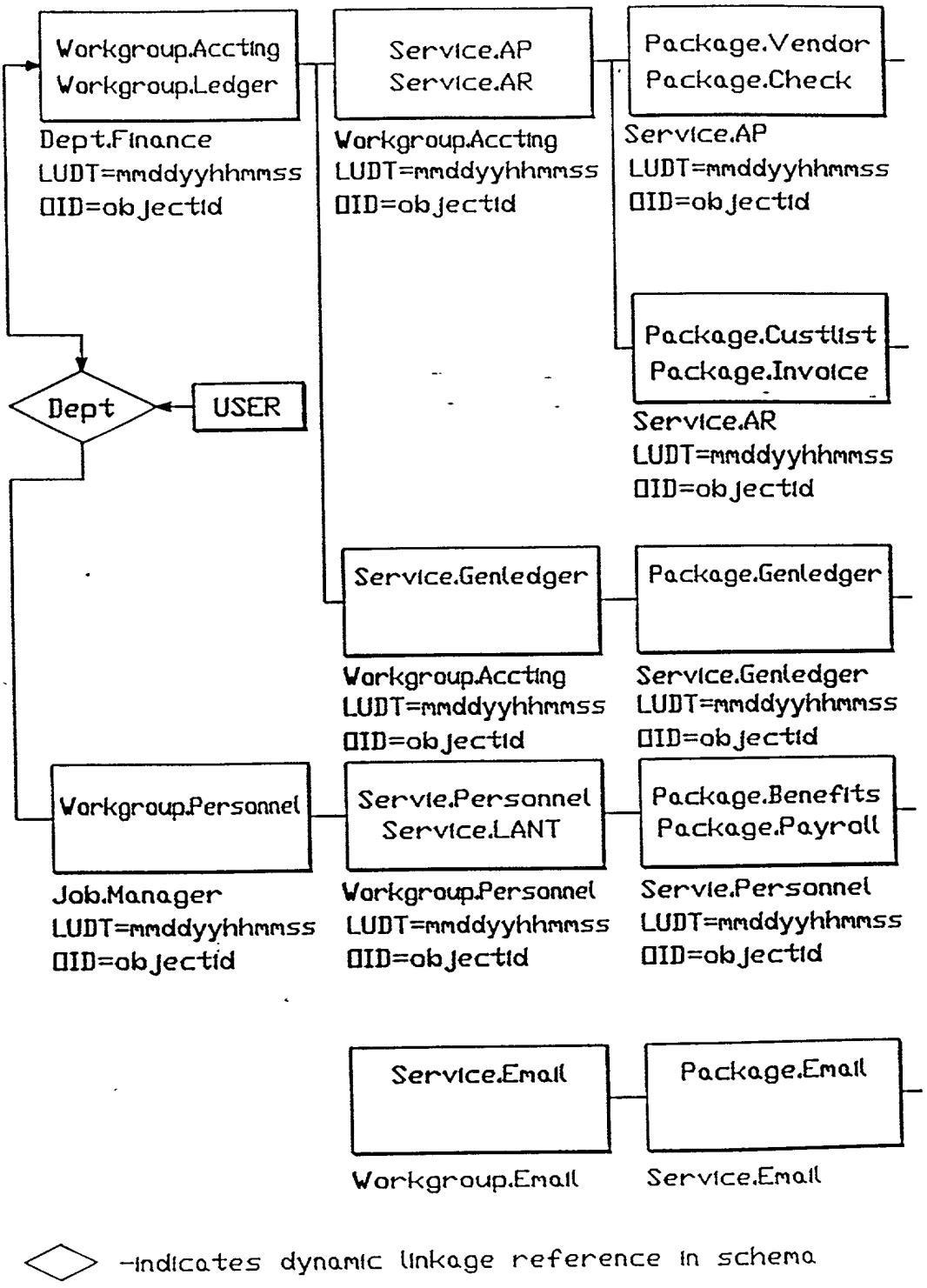

Workgroup.Accting
Workgroup.Ledger
Dept.Finance
LUDT=mmddyyhhmmss
OID=objectid
Service.AP
Service.AR
Workgroup.Accting
LUDT=mmddyyhhmmss
OID=objectid
Package.Vendor
Package.Check
Service.AP
LUDT=mmddyyhhmmss
OID=objectid
Package.Custlist
Package.Invoice
Service.AR
LUDT=mmddyyhhmmss
OID=objectid
Dept
USER
Service.Genledger
Workgroup.Accting
LUDT=mmddyyhhmmss
OID=objectid
Package.Genledger
Service.Genledger
LUDT=mmddyyhhmmss
OID=objectid
Workgroup.Personnel
Job.Manager
LUDT=mmddyyhhmmss
OID=objectid
Servie.Personnel
Service.LANT
Workgroup.Personnel
LUDT=mmddyyhhmmss
OID=objectid
Package.Benefits
Package.Payroll
Servie.Personnel
LUDT=mmddyyhhmmss
OID=objectid
Service.Email
Workgroup.Email
Package.Email
Service.Email
-indicates dynamic linkage reference in schema

FIG.—14A

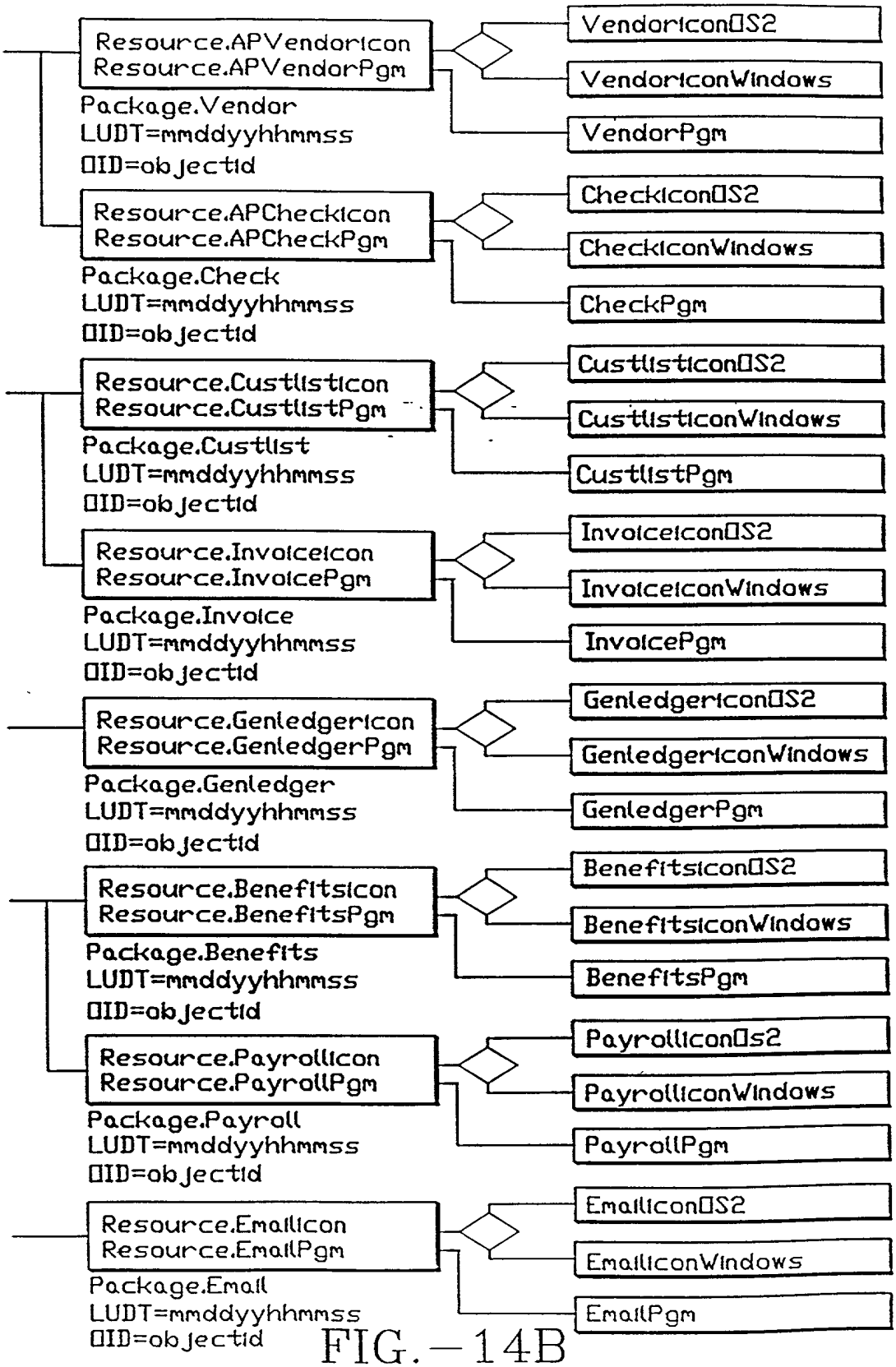

Resource.APVendorIcon
Resource.APVendorPgm
Package.Vendor
LUDT=mmddyyhhmmss
OID=objectid
VendorIconOS2
VendorIconWindows
VendorPgm
Resource.APCheckIcon
Resource.APCheckPgm
Package.Check
LUDT=mmddyyhhmmss
OID=objectid
CheckIconOS2
CheckIconWindows
CheckPgm
Resource.CustlistIcon
Resource.CustlistPgm
Package.Custlist
LUDT=mmddyyhhmmss
OID=objectid
CustlistIconOS2
CustlistIconWindows
CustlistPgm
Resource.InvoiceIcon
Resource.InvoicePgm
Package.Invoice
LUDT=mmddyyhhmmss
OID=objectid
InvoiceIconOS2
InvoiceIconWindows
InvoicePgm
Resource.GenledgerIcon
Resource.GenledgerPgm
Package.Genledger
LUDT=mmddyyhhmmss
OID=objectid
GenledgerIconOS2
GenledgerIconWindows
GenledgerPgm
Resource.BenefitsIcon
Resource.BenefitsPgm
Package.Benefits
LUDT=mmddyyhhmmss
OID=objectid
BenefitsIconOS2
BenefitsIconWindows
BenefitsPgm
Resource.PayrollIcon
Resource.PayrollPgm
Package.Payroll
LUDT=mmddyyhhmmss
OID=objectid
PayrollIconOs2
PayrollIconWindows
PayrollPgm
Resource.EmailIcon
Resource.EmailPgm
Package.Email
LUDT=mmddyyhhmmss
OID=objectid
EmailIconOS2
EmailIconWindows
EmailPgm

FIG.—14B

Example of Resolution for Department=Finance and OS = OS/2

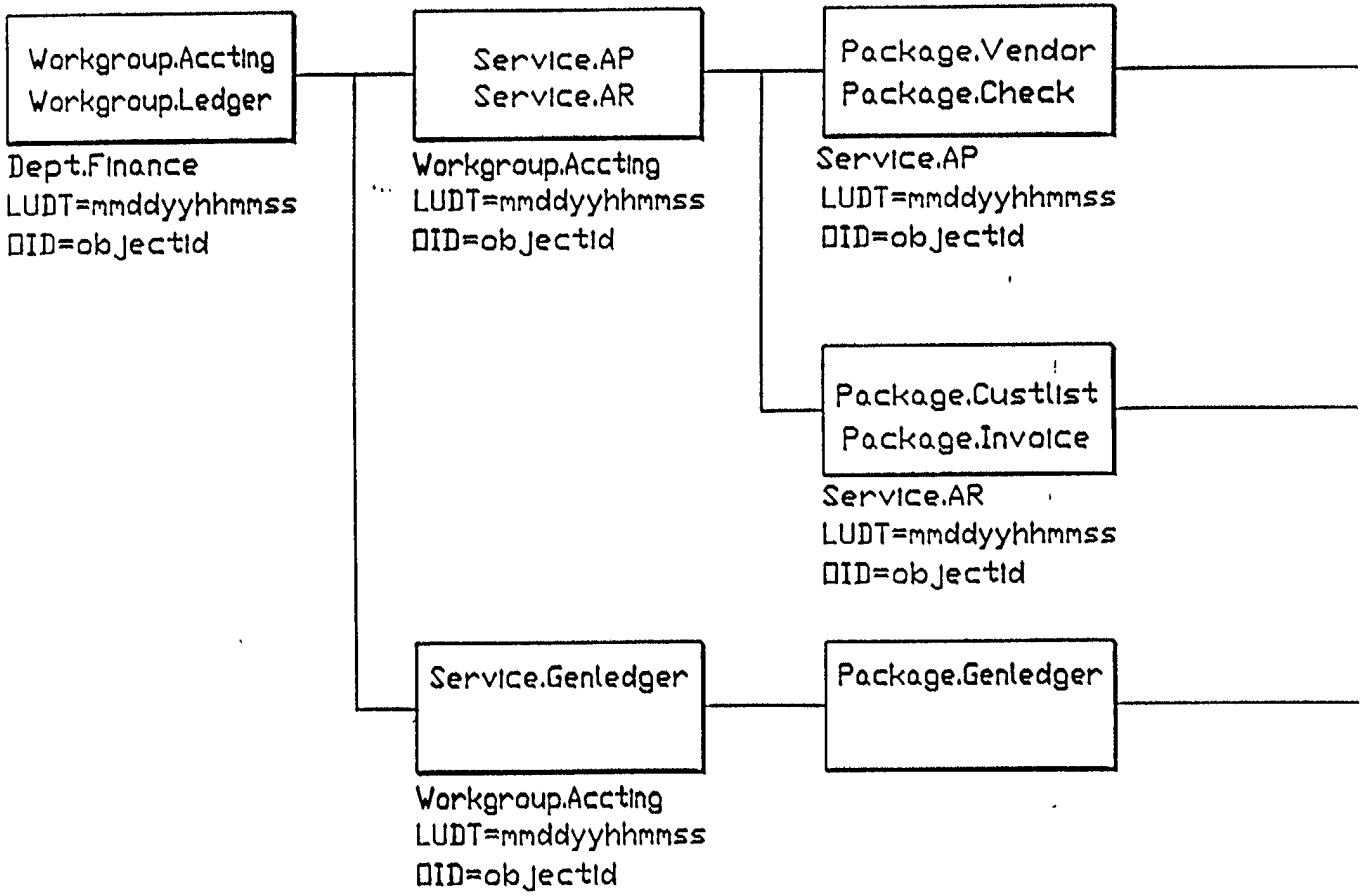


FIG.—15A

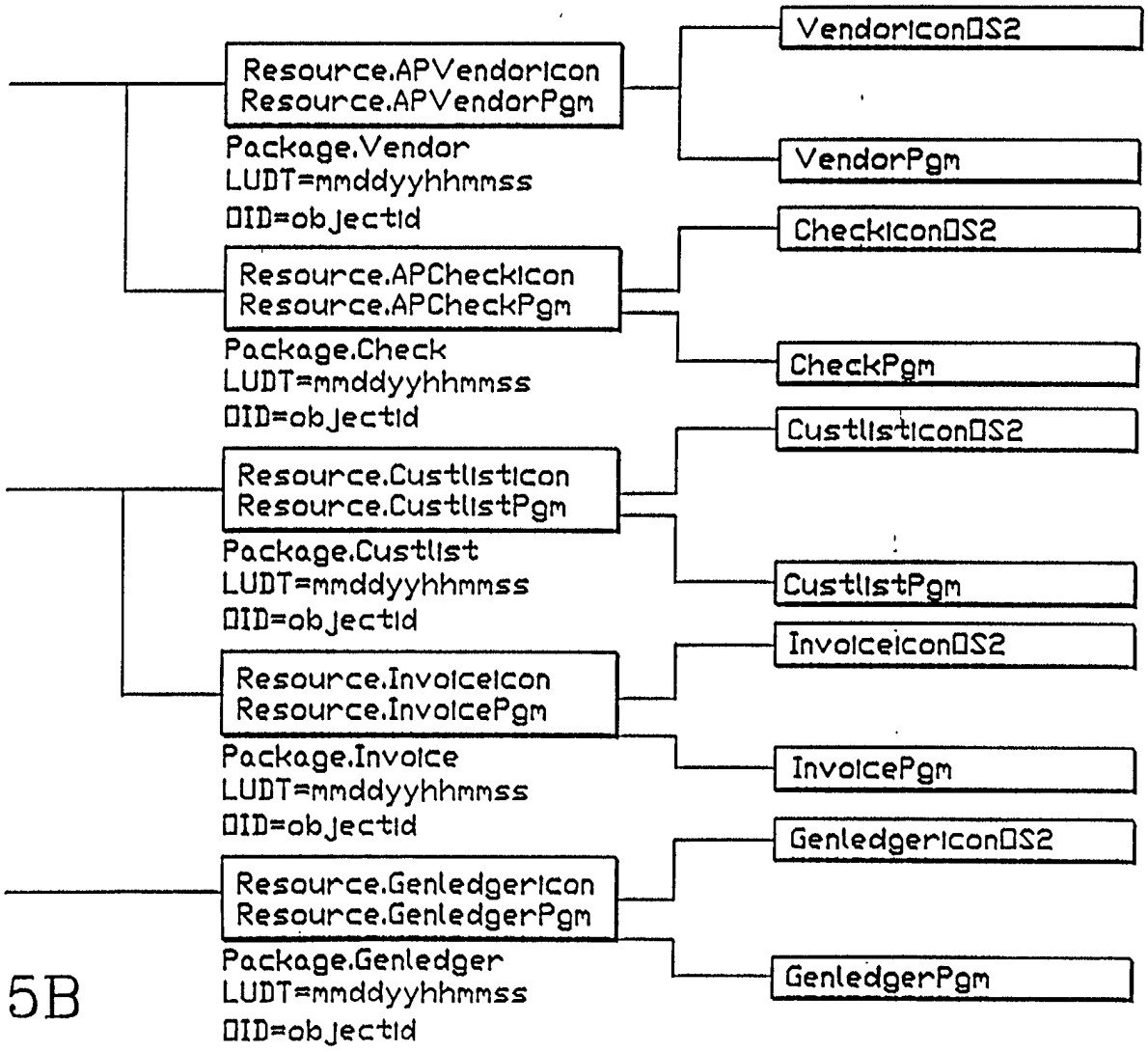

Resource.APVendorIcon
Resource.APVendorPgm
Package.Vendor
LUDT=mmddyyhhmmss
□ID=objectId
VendorIcon□S2
VendorPgm
Resource.APCheckIcon
Resource.APCheckPgm
Package.Check
LUDT=mmddyyhhmmss
□ID=objectId
CheckIcon□S2
CheckPgm
Resource.CustlistIcon
Resource.CustlistPgm
Package.Custlist
LUDT=mmddyyhhmmss
□ID=objectId
CustlistIcon□S2
CustlistPgm
Resource.InvoiceIcon
Resource.InvoicePgm
Package.Invoice
LUDT=mmddyyhhmmss
□ID=objectId
InvoiceIcon□S2
InvoicePgm
Resource.GenledgerIcon
Resource.GenledgerPgm
Package.Genledger
LUDT=mmddyyhhmmss
□ID=objectId
GenledgerIcon□S2
GenledgerPgm

FIG.—15B

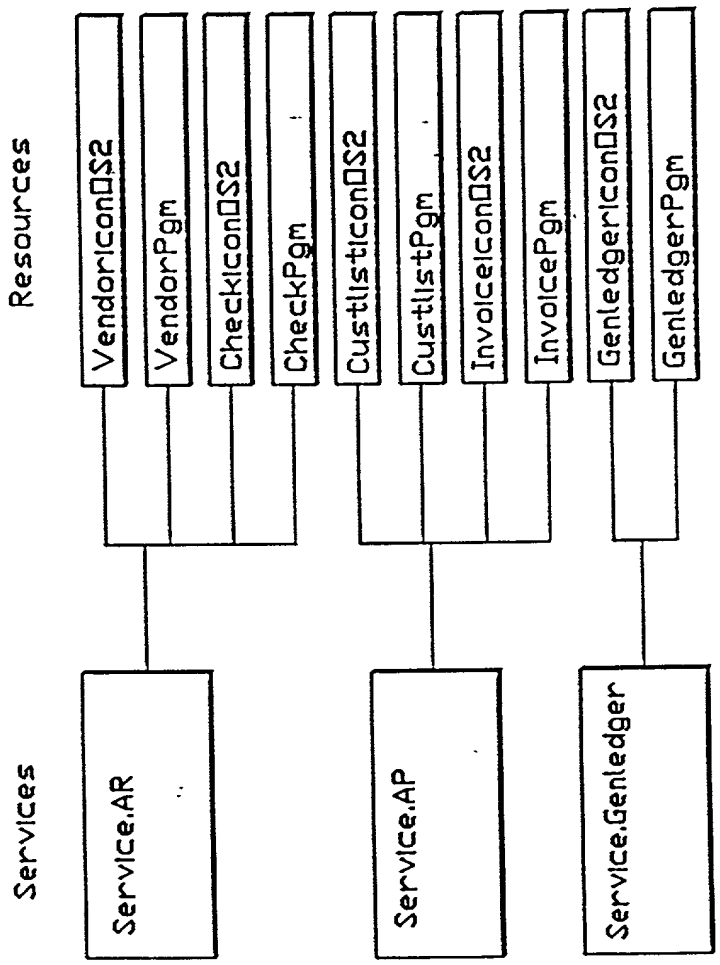

Resources
Vendoricon.OS2
VendorPgm
CheckIcon.OS2
CheckPgm
Custlisticon.OS2
CustlistPgm
InvoiceIcon.OS2
InvoicePgm
GenledgericonOS2
GenledgerPgm
Services
Service.AR
Service.AP
Service.Genledger

FIG.—16

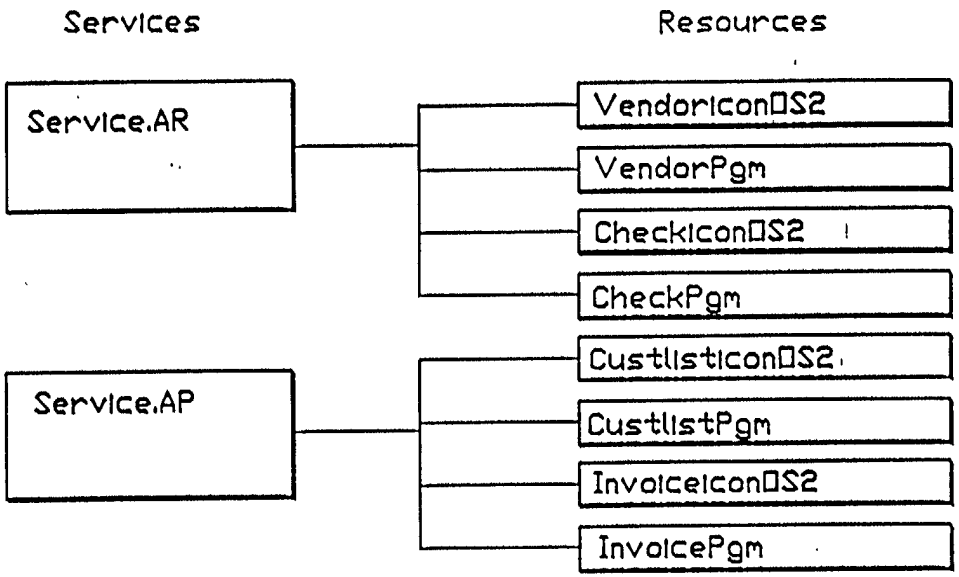


Figure 17 Already Have (Ah) List

FIG.—17

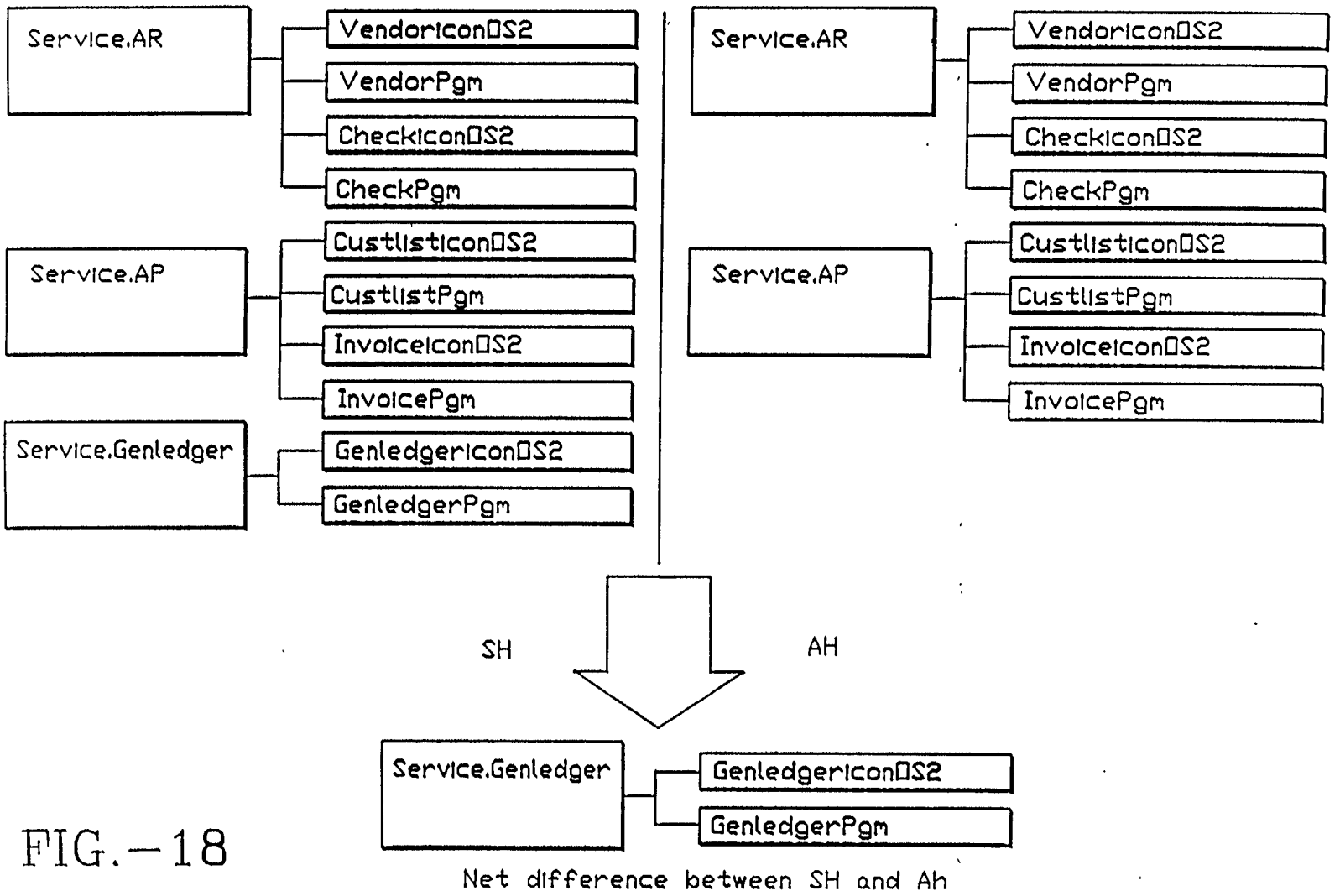


FIG.—18

Net difference between SH and Ah

```
Variable name : ZLUNAME   Length: 008  Data...: NVDLU109
Variable name : AMEM      Length: 007  Data...: 655,360
Variable name : BIOS      Length: 065  Data...: BIOS: 01/15/88 COPYRIGHT (C)
Variable name : BIOSEXT   Length: 079  Data...: BIOS EXTENTION FOUND AT: C000
Variable name : CPUTYPE   Length: 005  Data...: 80486
Variable name : DOSHMA    Length: 003  Data...: YES
Variable name : DOSVER    Length: 003  Data...: 5.0
Variable name : DRIVE     Length: 002  Data...: 13
Variable name : DRIVES    Length: 050  Data...: A, B, C, D, F, M, S, T, V, W
 ariable name : EMSVER    Length: 004  Data...: 4.0
Variable name : FPUTYPE   Length: 005  Data...: 80487
      ble name : FREEC    Length: 020  Data...: 1,204,224 BYTES
    iable name : FREED    Length: 020  Data...: 323,706,880 BYTES
 ariable name : GAME      Length: 002  Data...: 0
Variable name : MOUSE     Length: 044  Data...: 2 BUTTON MOUSE FOUND (DRIVER)
 ariable name : PARALLEL  Length: 002  Data...: 3
Variable name : PGMSIZE   Length: 007  Data...: 504,912
 ariable name : SERIAL    Length: 002  Data...: 2
Variable name : TMEM      Length: 007  Data...: 655,360
    iable name : TOTALC   Length: 020  Data...: 255,692,800 BYTES
 ariable name : EMSVER    Length: 004  Data...: 4.0
Variable name : FPUTYPE   Length: 005  Data...: 80487
      ble name : FREEC    Length: 020  Data...: 1,204,224 BYTES
    iable name : FREED    Length: 020  Data...: 323,706,880 BYTES
 ariable name : GAME      Length: 002  Data...: 0
Variable name : MOUSE     Length: 044  Data...: 2 BUTTON MOUSE FOUND (DRIVER)
 ariable name : PARALLEL  Length: 002  Data...: 3
Variable name : PGMSIZE   Length: 007  Data...: 504,912
 ariable name : SERIAL    Length: 002  Data...: 2
Variable name : TMEM      Length: 007  Data...: 655,360
    iable name : TOTALC   Length: 020  Data...: 255,692,800 BYTES
    iable name : TOTALD   Length: 020  Data...: 424,460,288 BYTES
Variable name : TOTXMEM   Length: 010  Data...: 15,728,640
 ariable name : VIDEO     Length: 023  Data...: VGA VIDEO ADAPTER CARD
 ariable name : XMSAMEM   Length: 010  Data...: 1,048,576
 ariable name : XMSTMEM   Length: 010  Data...: 1,048,576
Variable name : XMSVER    Length: 004  Data...: 2.00
Variable name : ZOBJNAME  Length: 013  Data...: HARDWARE_SCAN
Variable name : ZUSERID   Length: 008  Data...: MITCH
Variable name : ZOS       Length: 004  Data...: OS/2
Enter Variable name.....:
```

FIG.—19

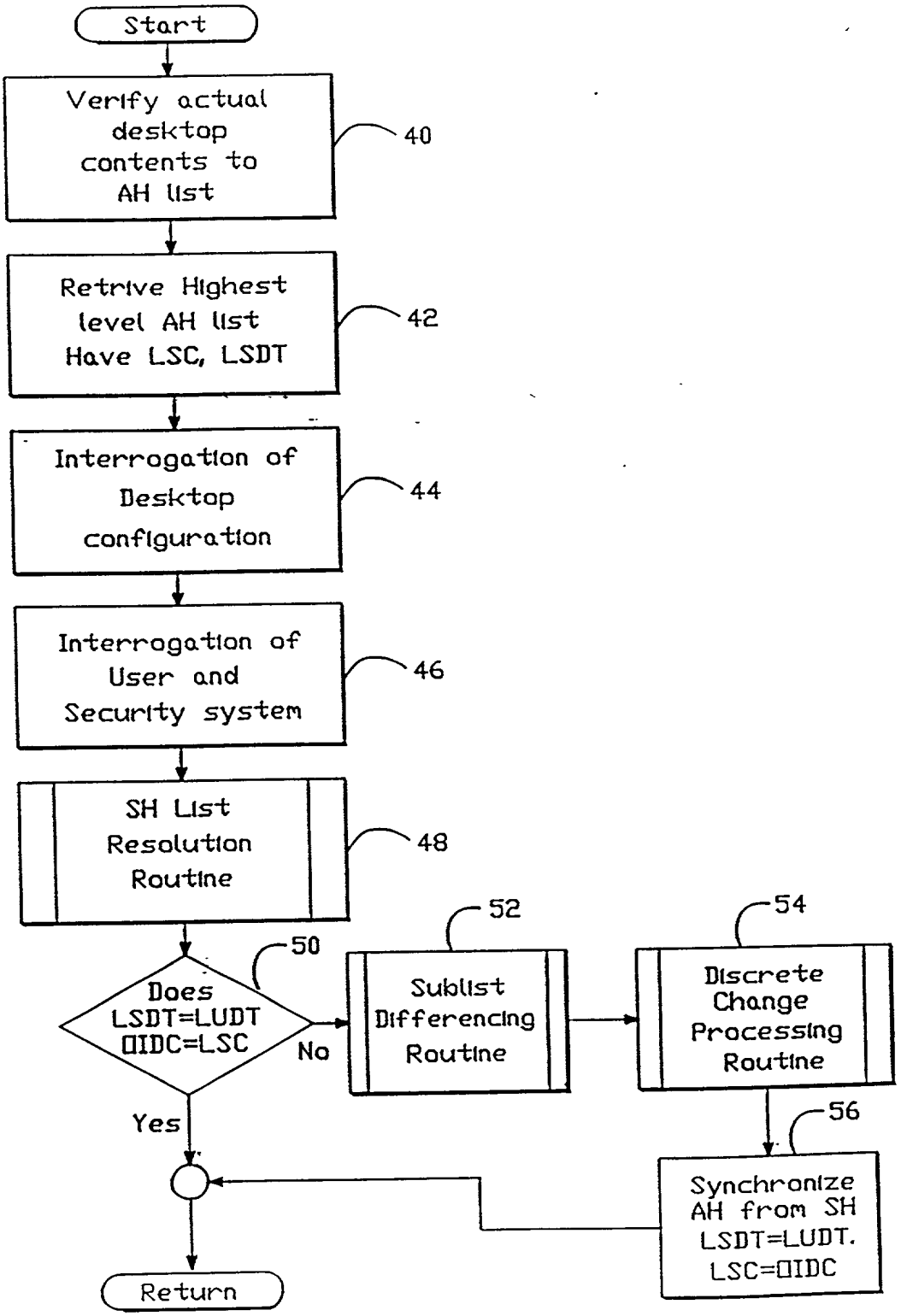

Start
Verify actual desktop contents to AH list
40
Retrive Highest level AH list Have LSC, LSDT
42
Interrogation of Desktop configuration
44
Interrogation of User and Security system
46
SH List Resolution Routine
48
50
Does LSDT=LUDT □IDC=LSC
No
Yes
52
Sublist Differencing Routine
54
Discrete Change Processing Routine
56
Synchronize AH from SH LSDT=LUDT. LSC=□IDC
Return

FIG.—20

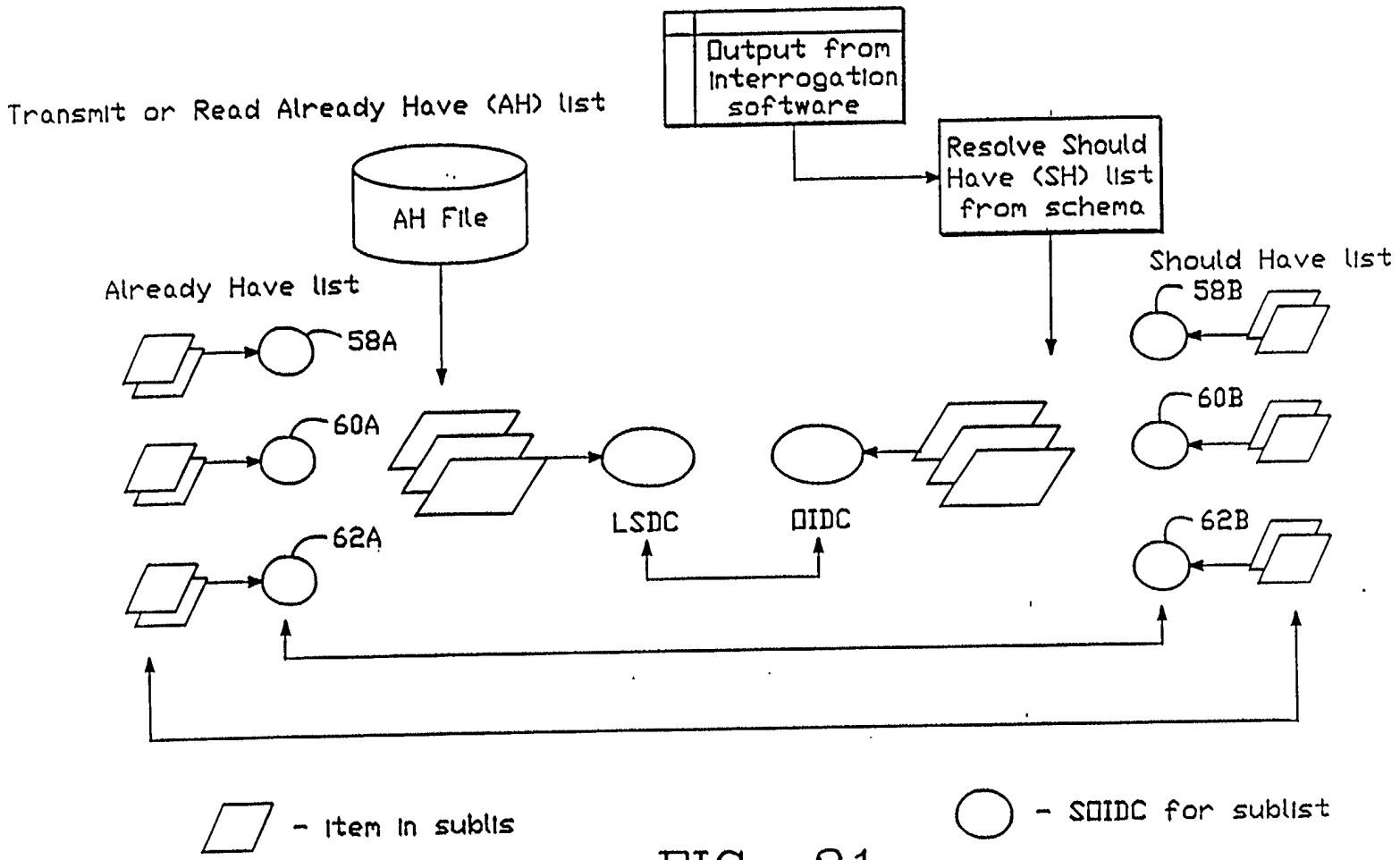

Transmit or Read Already Have (AH) list
Output from interrogation software
Resolve Should Have (SH) list from schema
AH File
Already Have list
Should Have list
58A
58B
60A
60B
62A
62B
LSDC
DIDC
- item in sublis
- SDIDC for sublist

FIG.-21

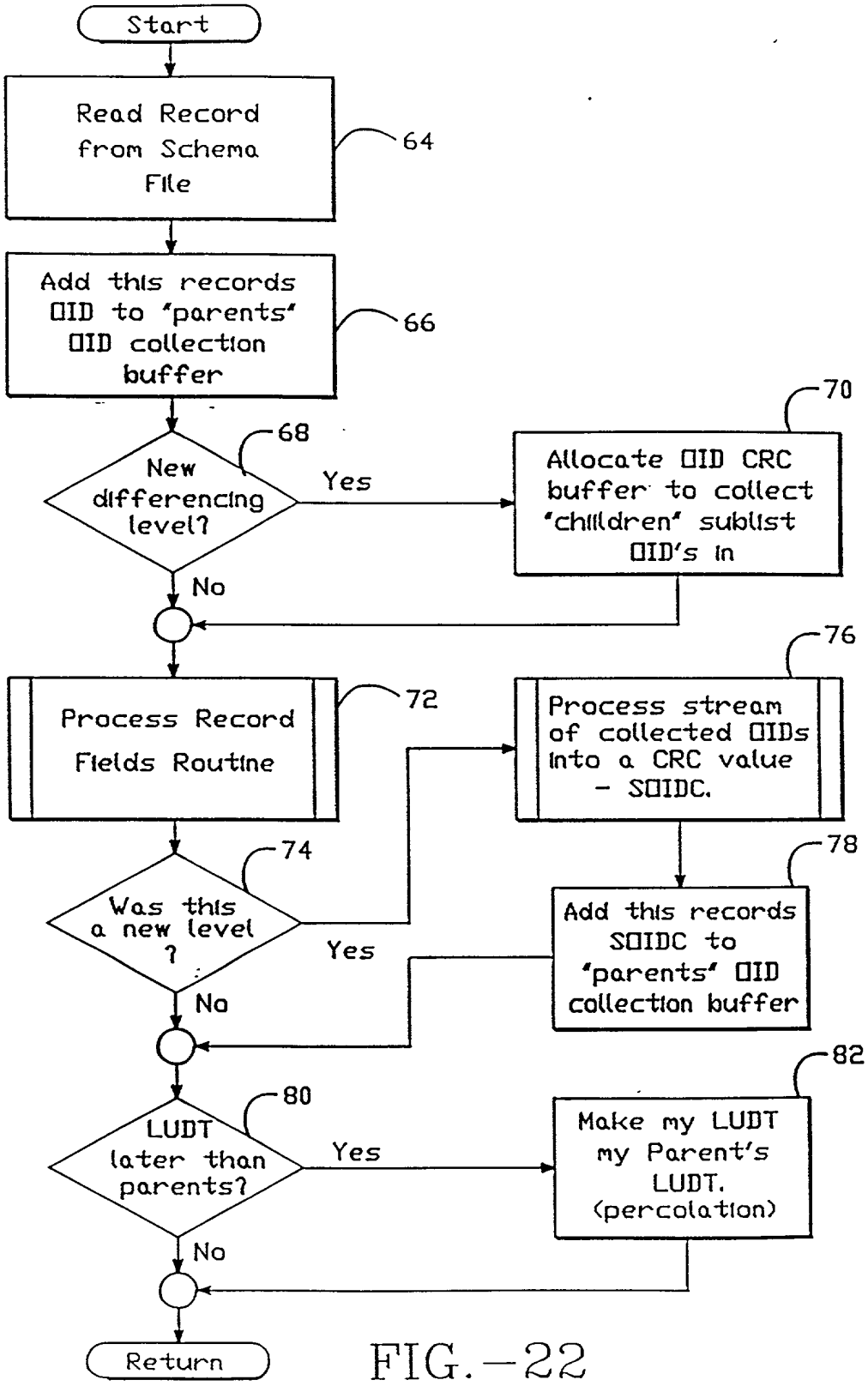

Start
Read Record from Schema File
64
Add this records OID to "parents" OID collection buffer
66
New differencing level?
68
Yes
No
Allocate OID CRC buffer to collect "children" sublist OID's in
70
Process Record Fields Routine
72
Process stream of collected OIDs into a CRC value - SOIDC.
76
Was this a new level ?
74
Yes
No
Add this records SOIDC to "parents" OID collection buffer
78
LUDT later than parents?
80
Yes
No
Make my LUDT my Parent's LUDT. (percolation)
82
Return

FIG.—22

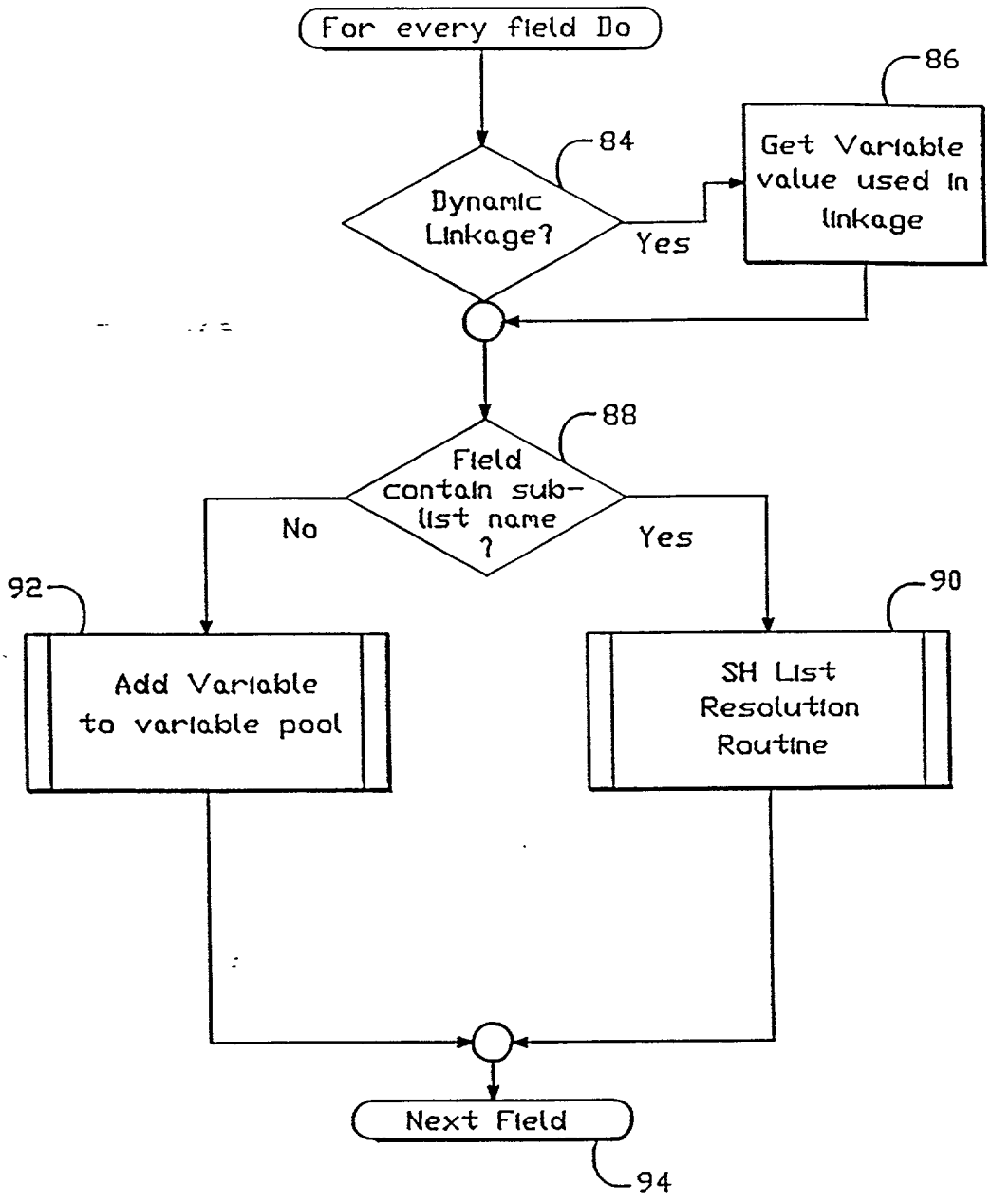

For every field Do
86
84
Dynamic Linkage?
Yes
Get Variable value used in linkage
88
Field contain sub-list name ?
No
Yes
92
90
Add Variable to variable pool
SH List Resolution Routine
Next Field
94

FIG.—23

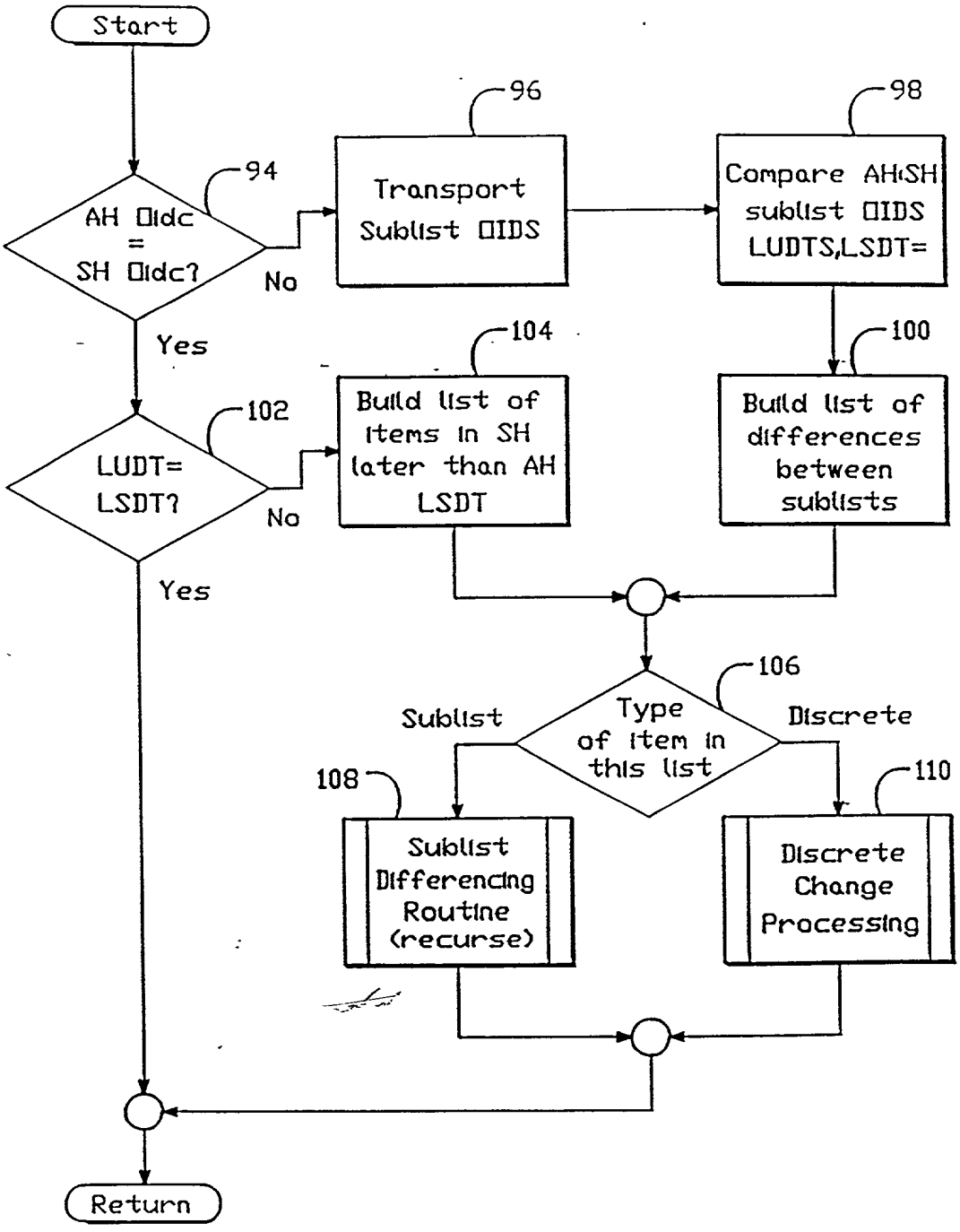

Start
AH OIdc = SH OIdc?
94
No
Yes
Transport Sublist OIDS
96
Compare AH:SH sublist OIDS LUDTS,LSDT=
98
Build list of differences between sublists
100
LUDT= LSDT?
102
No
Yes
Build list of items in SH later than AH LSDT
104
Type of item in this list
106
Sublist
Discrete
Sublist Differencing Routine (recurse)
108
Discrete Change Processing
110
Return

FIG.—24

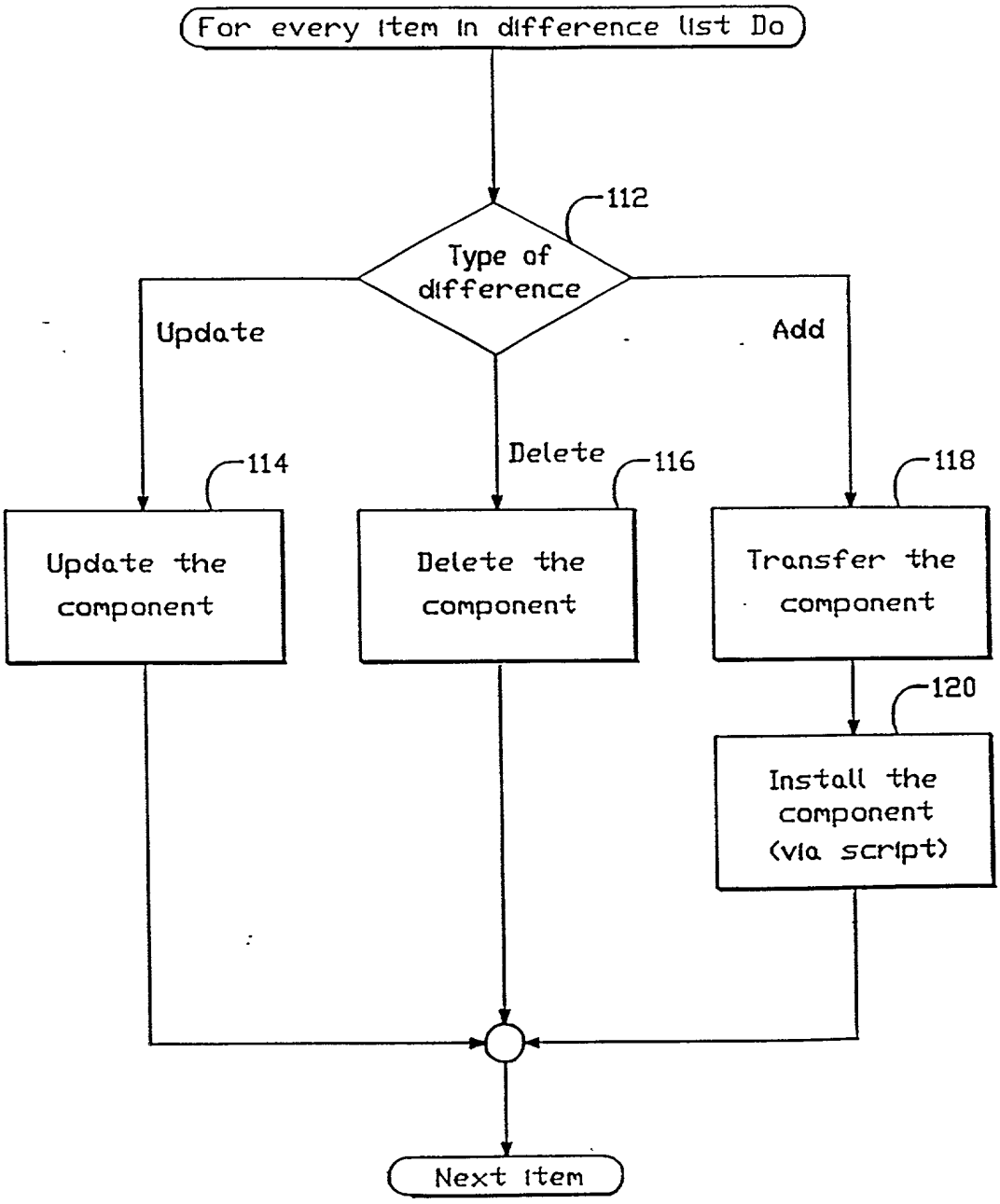

For every item in difference list Do
112
Type of difference
Update
Delete
Add
114
116
118
Update the component
Delete the component
Transfer the component
120
Install the component (via script)
Next item

FIG.—25